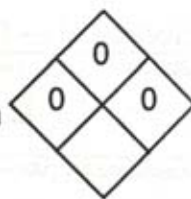


Material Safety Data Sheet  
May be used to comply with  
OSHA's Hazard Communication Standard,  
29 CFR 1910-1200. Standard must be  
consulted for specific requirements.

U.S. Department of Labor  
Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072



IDENTITY (As Used on Label and List)

MIRACHEM 250 RUST & SCALE REMOVER CONCENTRATE

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

## Section I

Manufacturer's Name MIRACHEM CORPORATION	Emergency Telephone Number 1-800-847-3527
Address (Number, Street, City, State, and ZIP Code) 1045 SOUTH EDWARD DRIVE	Telephone Number for Information 602-966-3030
TEMPE, ARIZONA 85281	Date Prepared 9/1/93
MAILING ADDRESS: P.O. BOX 27608 TEMPE, AZ 85285-7608	Signature of Preparer (optional)

## Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity: Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
PHOSPHORIC ACID CAS #7664-38-2		1mg/m <sup>3</sup>	NONE	<10

THE PRODUCT IS A MIXTURE, AS SET FORTH IN SUBPART 2 PART 1910 OF TITLE 29 CFR. THE PRODUCT IS NOT CONSIDERED A HEALTH OR PHYSICAL HAZARD. IN EVALUATING THE PRODUCT, NONE OF ITS INGREDIENTS, WITH THE EXCEPTION OF PHOSPHORIC ACID, ARE FOUND ON ANY LIST OF HAZARDOUS, CARCINOGENIC OR BANNED CHEMICAL AGENTS OR MATERIALS GENERATED BY THEM. AGENCIES SURVEYED INCLUDE THE NATIONAL CANCER INSTITUTE, E.P.A., F.D.A., NATIONAL SCIENCE FOUNDATION, O.S.H.A. (CALIFORNIA AND FEDERAL), CONSUMER PRODUCT SAFETY COMMISSION, DEPARTMENT OF TRANSPORTATION (SAFETY INSTITUTE AND RESEARCH SPECIAL PROGRAMS ADMINISTRATIONS), AND NATIONAL TOXICOLOGY PROGRAM.

THE PRODUCT HAS BEEN TESTED FOR SAFETY BIOLOGICALLY. TEST REPORTS ARE AVAILABLE ON REQUEST.

## Section III — Physical/Chemical Characteristics

Boiling Point	212°F	Specific Gravity (H <sub>2</sub> O = 1) 25°C	1.105
Vapor Pressure (mm Hg.) @ 20°C	SAME AS WATER	Melting Point	N/A
Vapor Density (AIR = 1)	SAME AS AIR	Evaporation Rate (Butyl Acetate = 1)	SAME AS WATER

Solubility in Water

COMPLETELY MISCIBLE WITH WATER

Appearance and Odor

AMBER TO DARK BROWN LIQUID – NO ODOR

## Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used) NONE TO 212°F (PMCC ASTM D93)	Flammable LimitsNON-FLAMMABLE NON-COMBUSTIBLE	LEL N/A	UEL N/A
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Extinguishing Media

NONE

Special Fire Fighting Procedures

NONE

Unusual Fire and Explosion Hazards

NONE



## Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	XX	

Incompatibility (Materials to Avoid)

HIGH STRENGTH ALKALINE MATERIALS NEUTRALIZE PRODUCT

Hazardous Decomposition or Byproducts

THERMAL DECOMPOSITION MAY PRODUCE CO<sub>2</sub>

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	XX	

## Section VI — Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?	LD50 > 6gm/Kg
	NON-HAZARDOUS	NON-HAZARDOUS	NON HAZARDOUS	

Health Hazards (Acute and Chronic)

ACUTE — NO KNOWN HAZARD AS CONSIDERED BY THE NATIONAL PAINT AND COATINGS ASSOCIATION REVISED HMIS

RATING MANUAL FOR LD50 ORAL TOXICITY, D.O.T. CORROSIVITY SKIN TEST, EYE IRRITATION AND LC50 INHALATION

TOXICITY. CHRONIC — NOT YET DETERMINED; HOWEVER, NO KNOWN HAZARDS TO DATE

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
NONE	NO	NO	NO

Signs and Symptoms of Exposure

PRODUCT CONSIDERED NON-HAZARDOUS

Medical Conditions

Generally Aggravated by Exposure PRODUCT CONSIDERED NON-HAZARDOUS

Emergency and First Aid Procedures

PRODUCT CONSIDERED NON-HAZARDOUS — NO SPECIAL PROCEDURES REQUIRED.

## Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

DILUTE WITH WATER AND/OR NEUTRALIZE WITH ALKALINE MATERIAL, SUCH

AS A LIME OR SODA ASH.

Waste Disposal Method

FLUSH TO SEWER WHERE APPLICABLE WITHIN FEDERAL OR LOCAL WASTE DISPOSAL REQUIREMENTS.

IF NOT APPLICABLE AFTER NEUTRALIZATION, LANDFILL DISPOSAL SHOULD BE SUITABLE.

Precautions to Be Taken in Handling and Storing

GENERAL — AVOID PROLONGED CONTACT WITH SKIN. USE ACID RESISTENT

METALS. PLASTIC, GLASS, FIBERGLASS OR RUBBER LINED MATERIALS FOR STORAGE & HANDLING EQUIPMENT.

PROTECT FROM FREEZING.

Other Precautions

KEEP OUT OF REACH OF CHILDREN

## Section VIII — Control Measures

Respiratory Protection (Specify Type) NO SPECIAL REQUIREMENTS IF PRODUCT IS SPRAYED OR VAPORIZED A NIOSH CERTIFIED SELF-CONTAINED RESPIRATOR IS RECOMMENDED (BUT NOT REQUIRED)

Ventilation	Local Exhaust	NO SPECIAL REQUIREMENTS RECOMMEND USING IN WELL VENTILATED AREA	Special	NONE
	Mechanical (General)	NONE	Other	NONE

Protective Gloves

RUBBER OR NEOPRENE ARE RECOMMENDED

Eye Protection

ANTI-SPLASH GOGGLES ARE RECOMMENDED

Other Protective Clothing or Equipment

THE USE OF RUBBER APRON OR BOOTS IS SUGGESTED, BUT ON AN OPTIONAL BASIS.

Work/Hygienic Practices

ALTHOUGH NOT REQUIRED, WE RECOMMEND AS GOOD HYGENIC PRACTICE THE USE OF PREVENTIVE

MEASURES SUCH AS GLOVES, GOGGLES, ETC.